

STELLAR TEAM

NOBLE MISSION



*October through
December 2020*

Missile Defense Overview

Long Range Discrimination Radar Operations Online Open House



Missile Defense Evolving Threat Environment

Adversaries are fielding diverse and expansive ranges of modern offensive missile systems

- Developing new missiles & improving existing systems
 - Precision strike
 - Penetration aids (e.g. decoys, jamming devices)
- Capable of maneuvering in midcourse or terminal phase
 - Maneuvering Reentry Vehicle (MaRV)
 - Multiple Independent Reentry Vehicle (MIRV)
 - Hypersonic Glide Vehicle (HGV)
 - Long Range Cruise Missiles (Defense of Homeland)



North Korea
Hwasong-15 ICBM



Iran
Emad-1 MRBM with MaRV



China
Dong Feng (DF-26) IRBM



Russia
Concept Hypersonic Glide Vehicle

Range



Note: Range rings from Pentagon to show scale

SRBM: Short Range Ballistic Missile	(300-1000 km :: 621 mi)
MRBM: Medium Range Ballistic Missile	(1000-3000 km :: 1864 mi)
IRBM: Intermediate Range Ballistic Missile	(3000-5500 km :: 3418 mi)
ICBM: Intercontinental Ballistic Missile	(5500+ km :: 3418+ mi)

Speed

Subsonic:	< Mach 1	(< 770 mph)
Supersonic:	Mach 1-5	(770-3,800 mph)
Hypersonic:	Mach 5-10	(3,800-7,700 mph)
High Hypersonic:	Mach 10-25	(7,700-19,200 mph)

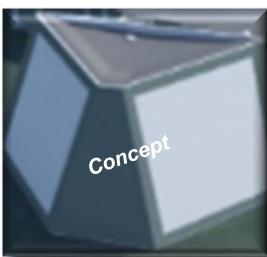
Ref: 2019 Missile Defense Review

Approved for Public Release
20-MDA-10540 (30 Jul 20)



Missile Defense Agency Mission

To develop and deploy a **layered** Missile Defense System to **defend** the United States, its deployed forces, allies, and friends from missile attacks in **all phases** of flight



**Missile Defense Capability
Globally Deployed**



Missile Defense Agency Priorities

In Support of the National Defense Strategy



Support the Warfighter

Augment Service Readiness, Logistics Support, Training, and Lifecycle Sustainment



Develop and Deliver the Missile Defense System

Focus on Increasing Lethality, Building Out Missile Defense Force Structure, and Deploying Credible Deterrence



Outpace the Evolving Threat

Develop Architectures that Challenge Adversary Capabilities, Quickly Mature Promising Technologies, Deliver with Speed



“A robust and credible layered missile defense system paired with our conventional and nuclear force capabilities provides the ability to deter strategic attacks, deny benefits, and impose costs against any potential adversary.”

-- Admiral Charles A. Richard, U.S. Strategic Command



Today's Layered Active Missile Defense System

C2BMC Command and Control, Battle Management and Communications

NMCC

USSTRATCOM

USNORTHCOM

USINDOPACOM

USEUCOM

USCENTCOM

USSPACECOM

BOOST
Defense Segment

ASCENT/MIDCOURSE
Defense Segment

TERMINAL
Defense Segment

**The System
Of Elements**

GBI
Ground-Based
Interceptor

SM-3 IIA
Standard
Missile

SM-3 IA/IB
Standard
Missile

THAAD
Terminal High
Altitude Area
Defense

SM-6
Standard
Missile

Aegis
Sea-Based
Terminal

PAC-3
Patriot Advanced
Capability

GMD
Ground-based
Midcourse
Defense

**Aegis
Ship & Ashore**
Ballistic Missile
Defense

Sensors



Satellite Surveillance
BMDS OPIR Architecture



Upgraded Early
Warning Radars



Forward-Based
Radars



Aegis BMD
SPY Radars



Discriminating
Radars

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